Where is the M in MTCT? The Broader Issues in Mother-to-Child Transmission of HIV

In 1985, a report subtitled "Where is the M in MCH?"[1] pointed out that most, if not all, maternal and child health (MCH) programs, both domestic and international, focused on health issues concerning infants and young children. Women were considered, if at all, only in relation to improving infant neonatal outcomes. This focus was partly justified in the developing world, where infant mortality rates of 100 per 1000 or higher meant that millions of infants and young children were dying each year. With maternal mortality ratios as high as 500 to 1000 per 100 000 live births, however, each year an estimated 600 000 women were dying from pregnancy-related complications. The vast majority of these deaths were preventable. In addition, several million more women were suffering serious complications, most notably vesical vaginal fistula and rectal vaginal fistula, which result in permanent urinary or rectal incontinence, essentially making outcasts of the women who survive.

At the end of the 19th century, maternal mortality ratios in North America and Europe were similar to those today in most developing countries. Antibiotics, safe blood transfusions, and ready access to both emergency surgical care and safe, legal abortion services have dramatically reduced these ratios (to 8 to 12 deaths per 100 000 live births). But with great worldwide inequities in income distribution and access to health and social services, rates of maternal mortality and morbidity in developing countries remain extraordinarily high, even though the solution requires no new technologies, no new drugs, and no new vaccines. Access to emergency care is the single most important component in lowering maternal mortality. In Africa, Asia, and Latin America, access to such services is either very limited or entirely absent.

HIV: MTCT

A similar dynamic underlies efforts to decrease mother-to-child transmission (MTCT) of HIV. At the July 2000 international AIDS conference in Durban, South Africa, much of the discussion focused on preventing maternal–infant transmission of HIV. In 1999, an estimated 500 000 neonates were infected with HIV during the prenatal, intrapartum, or breastfeeding periods.[2] Further estimates suggest that as many as 50% of all deaths among children younger than 5 years in such countries as South Africa and Zimbabwe are from AIDS; in Botswana, that figure reaches 64%.

With 50% of all AIDS cases in Africa and Asia occurring among women, MTCT will continue at an astounding pace. The overall rate of perinatal transmission is approximately 25%; among breastfeeding women, the rate is as high as 45%.[2] Effective treatment to substantially decrease transmission is available in the West—but not in sub-Saharan Africa and Asia.

A long course of treatment during pregnancy can reduce MTCT to minimal levels.[3] Research in Africa and Asia has demonstrated that shorter, much less expensive courses of therapy also decrease transmission rates, although not to the same extent as the longer ones.[4,5] However, as Berer states, "Short course AZT treatment is an intervention that uses women's bodies to deliver preventive treatment to infants. Although the anti-HIV benefit to infants is clear, there is no benefit to the women."[6]

Impact on Women

There is a paucity of research examining the health impact of short-course therapy on women. Many clinicians have assumed that single-dose nevirapine and the slightly longer short-course therapies do not increase viral resistance to these drugs. However, one report suggests that viral resistance may be induced following a single dose of nevirapine.[7] Clearly, further research is needed to determine the effects of antiretroviral interventions on women's health. Although resistance may not be crucial if the woman does not receive treatment in the future, treatment for women may well become available. Efforts by South Africa to negotiate drug pricing and possible initiatives by both the pharmaceutical industry and Western nations could result in more widespread drug availability, which would be beneficial in re-

ducing MTCT but could have a negative impact on HIV-positive women.

If indeed funds become available to make short-term therapy available to decrease the chances of MTCT, should we not be giving serious consideration to finding ways to offer women treatment simply because they are infected with HIV, not just because they are pregnant? In other words, should we not value saving women's lives as an equal priority to decreasing transmission to infants?

Breastfeeding

Another issue of tremendous complexity relates to breastfeeding.[8] The available data indicate that breastfeeding increases the risk of MTCT above and beyond the in utero and intrapartum risks of transmission. We do not know whether short-course therapy to reduce MTCT is effective when women breastfeed, nor do we have data to assess which is greater: the increased risk of a breastfed infant's being infected with HIV and subsequently dying from AIDS or the increased risk of childhood death from diarrheal disease and malnutrition because of unclean water and inadequate amounts of formula milk. Data on the comparative risks are vitally needed at both the country and regional levels.

The very successful 1974–1984 Nestlé boycott revolved specifically around the issue of the high rates of infant mortality from bottle-feeding in cultures where sterilizing water is difficult and funds to purchase sufficient quantities of formula milk are inadequate. This advocacy campaign resulted in a United Nations Children's Fund/World Health Organization (UNICEF/WHO) code on the marketing of formula milk in developing countries. If it is recommended that women in poor communities forgo breastfeeding, then programs must be implemented to make certain that bottle-feeding does not increase infants' risk of death.

Orphans

One final issue—perhaps one of the most complex from a moral and ethical standpoint—is that decreasing maternal–infant transmission of HIV without treating the mother or father adds to the already high numbers of orphaned children. Many of these orphans become street people, because AIDS has ravaged their traditional extended families.[9] Do we expand treatment to decrease MTCT without treating women, only to increase the number of orphans? It is difficult to believe that this question even needs to be asked.

Conclusions

The following imperatives need to be considered in relation to MTCT:

- treatment of women, but not just to decrease MTCT;
- treatment of infants who are HIV positive;
- access to clean water and adequate amounts of formula milk; and
- significant investment in the infrastructure needed to fulfill these goals.

What a sad commentary on the priorities of both the donor community (the United Nations system, the World Bank, the International Monetary Fund, and bilateral agencies) and local governments that none of these issues is currently a priority initiative in most developing nations. Consider what a reallocation of the vast amount of funding invested in the military alone could do for programs to improve health and well-being. The Clinton Administration's suggestion that $1 billion in loans be made available through the Import–Export Bank for the purchase of drugs and for infrastructure development was inappropriate and ill conceived at a time when poor nations are struggling to abolish their high debt. If such funds are to be made available, they should be outright grants, not loans that will only further increase the burden of debt in poor countries.

Why have we been unable to establish a health care system that can deliver emergency obstetric services to reduce high rates of maternal mortality and preventive testing and treatment services for HIV/AIDS? The differentials between the haves and the have-nots within and among countries are unconscionable. Why have both international and local governments not given higher priority to the impact of poverty and the lack of resources for vital services? Where is the outrage that we still have to ask these questions? These are the multiple tragedies that societies, their political structures, and the international community must recognize and prioritize—and then implement strategies to bring about real change. As a first step, government agencies, bilateral donors, nongovernmental organizations, and others working to decrease MTCT of HIV should join with their counterparts advocating for women's health and rights to reach a consensus that does not ignore the M in MTCT. □

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